

STATEMENT OF LEGAL AND FACTUAL BASIS

Stanley Furniture Co. - Stanleytown Plant

Stanleytown, Virginia

Permit No. VA-30320

Permit Date: **May 19, 2003**

Registration No. 30320

AIRS ID No. 51-089-0037

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Stanley Furniture Co. has applied for a Title V Operating Permit for its wood furniture manufacturing plant located at 1401 Fairystone Park Highway, Stanleytown, VA. The Department has reviewed the application and has prepared a Title V Operating Permit.

FACILITY INFORMATION

Permittee

Stanley Furniture Co.
P.O. Box 30
Stanleytown, VA 24168

Facility Location

Stanley Furniture Co. - Stanleytown Plant
1401 Fairystone Park Highway
Stanleytown, VA

FACILITY GENERAL DESCRIPTION:

SIC Code 2511, wood household furniture.

This is a large conventional wood household furniture manufacturing plant which manufactures a wide variety of furniture. It is located at 1401 Fairystone Park Highway, in Stanleytown in Henry County. The plant receives and dries rough sawn lumber (primarily hardwoods), performs various woodworking and furniture assembly operations, and finishes the assembled furniture. Finishes are primarily NESHAP (MACT) compliant VOC-based wood furniture coatings. Spraying is the primary application method.

All wood dust emission sources (EU-WDS) are controlled by baghouse filters or closed loop cyclones without emissions.

Three (3) boilers supply essentially all the heat for the plant. Most of the heat is supplied by burning Stanley's dry process hogged wood byproduct (wood fuel) that is fed pneumatically from the plant's enclosed wood fuel storage silo. Surplus summer wood fuel is saved for winter consumption in a semi-enclosed storage building designed for this purpose. Backup fuel is coal for the largest wood boiler (FB2), No. 2 fuel oil for the smaller wood boiler (FB1). The third boiler (FB3) is small and burns only No. 2 fuel oil. Find additional boiler details in the *Source Description* section below.

NSR Permits, MACT, NSPS, PSD, Attainment: The plant has four (4) New Source Review (NSR) permits. Three of the permits are for portions of Woodworking, and one PSD permit is for a portion of Finishing. Their conditions have been rolled over into the Title V permit. The wood furniture plant MACT, 40 CFR 63 Subpart JJ, applies to the plant, primarily to Finishing (EU-F) and to the small Contact Adhesive operation (Con-Adh). The MACT has been included in the Title V permit. The Boiler NSPSs 40 CFR 60 Subpart Db and 40 CFR 60 Subpart Dc do not apply because the two wood boilers FB1 and FB2 were constructed before the NSPS applicability dates, and the small FB3 fuel oil boiler is too small. This facility is a PSD definition major source (250 tons/yr PTE) due to VOC emissions from finishing, and due to SO₂ and NO_x from boilers. The location is currently an attainment area for all pollutants.

SOURCE DESCRIPTION

Boilers (Fuel Boilers): refr. EU-FB; (FB1 + FB2 + FB3):

Boiler FB1; pre-1967 Erie City type 4C-28; wood fuel/ backup distillate (No. 2) fuel oil; 37.0 million Btu/hr input rated capacity (2.5 tons/hr wood fuel @ 7500 Btu/lb, 270 gal/hr fuel oil @ 137,000 Btu/gal). Wood is the primary fuel. Multicyclone flyash collector. No NSR permit is applicable. NSPS Dc is not applicable due to construction before 1989.

Boiler FB2; 1967 Union Iron Works type VO; wood fuel/ backup coal; 110.0 million Btu/hr input rated capacity (7.3 tons/hr wood fuel @ 7500 Btu/lb, 4.2 tons/hr coal @ 13,000 Btu/lb). Wood is the primary fuel. Multicyclone flyash collector. No NSR permit is applicable. NSPS Db is not applicable due to construction before 1984.

Boiler FB3; 1990 Hurst package boiler; distillate (No. 2) fuel oil only; 8.46 million Btu/hr input rated capacity (62 gal/hr distillate [No. 2] fuel oil @ 137,000 Btu/gal). No NSR permit is applicable. NSPS Dc is not applicable due to rated capacity less than 10 million Btu/hr.

Wood dust; refr. EU-WDS:

All wood dust emission sources are controlled by baghouse filters or closed loop cyclones without exhausts to atmosphere, plus possibly a few processes, material transfers or storage without direct exhaust to the outside atmosphere. There are 25 main wood dust air handling systems exhausting to atmosphere, all controlled by baghouses. Three (3) NSR permits address portions of the wood dust facilities.

Finishing: refr. EU-F (40 CFR 63 Subpart JJ applies);:

A portion of the plant's finishing, the F2 (Plant 2) portion of EU-F, is the subject of the 5-19-99 PSD permit amended/reissued 7-29-02. There are no NSR permits for the other portions of finishing, F1. Finishes applied are normally NESHAP (MACT) compliant VOC-based wood furniture coatings, although the plant can fall back on monthly averaging or any other option as allowed under the MACT requirements. Spraying is the primary application method. All spraybooths with spraying equipment control overspray particulates with water curtain spraybooths, spraybooth dry filters, or equivalent.

Other: Contact Adhesive Operation; refr. Con-Adh:

The plant has a small contact adhesive operation that is subject to 40 CFR 63 Subpart JJ, the wood furniture manufacturing MACT. This operation includes one adhesive spray booth. The booth includes dry overspray filters.

Other: Lumber Drying Kilns; refr. EU-DK:

The plant has a combined total of 13 lumber drying kilns. Emissions are normally less than 5 tons/yr VOC, but could exceed 5 tons/yr if the throughput of pine increased due to market demand.

Insignificant emissions units:

Insignificant emissions units include gluing other than the small contact adhesive operation, maintenance parts washers, one emergency diesel fire pump, the vacuum pump room, air compressors, and miscellaneous storage tanks. The storage tanks contain finishing materials, fuel oil, diesel fuel, gasoline, and used oil. Each tank is smaller than 10,000 gallons and therefore not subject to NSPS Kb (most are much smaller than 10,000 gallons).

COMPLIANCE STATUS

The facility has been inspected at least once per year. The facility was in compliance with the State Air Pollution Control Board Regulations during the last inspection, which was conducted on July 26, 2002. The wood fuel boiler and the wood fuel/coal boiler were stack tested on July 9, 1998 and December 4, 1998 at EPA's request to measure their particulate emission rates; both boilers were determined to be in compliance.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

See "Source Description" above and the description at the beginning of each Emission Unit Applicable Requirements section below.

TITLE V PROGRAM MAJOR SOURCE BASIS

The facility is a Title V major source due to emissions of VOC exceeding 100 tons/yr, primarily from finishing, potential to emit (PTE) emissions exceeding 100 tons/yr each for PM-10, SO₂, NO_x, and CO primarily from boilers, and 25 tons/yr for combined HAPS and 10 tons/yr for each of several individual HAPS, primarily from finishing.

EMISSIONS INVENTORY

Emissions are summarized in the following table:

PLANTWIDE EMISSIONS SUMMARY [TONS PER YEAR]	
CRITERIA POLLUTANTS	1999 ESTIMATED EMISSIONS
Particulate Matter (PM10)	32.9
Nitrogen Oxides (NO _x)	44.1
Sulfur Dioxide (SO ₂)	66.0
Carbon Monoxide (CO)	77.5
Volatile Organic Compounds (VOC)	862.9
HAZARDOUS AIR POLLUTANTS	
Combined HAPs	Greater than 25.0

EMISSION UNIT APPLICABLE REQUIREMENTS – Fuel Boilers - Refr. EU-FB (Fuel Boilers FB1, FB2, FB3).

The plant's boilers and fuels are as follow:

Boiler FB1; pre-1967 Erie City type 4C-28; wood fuel/ backup distillate (No. 2) fuel oil; 37.0 million Btu/hr input rated capacity (2.5 tons/hr wood fuel @ 7500 Btu/lb, 270 gal/hr fuel oil @ 137,000 Btu/gal). Wood is the primary fuel. No NSR permit is applicable. NSPS Dc is not applicable due to construction before 1989.

Boiler FB2; 1967 Union Iron Works type VO; wood fuel/ backup coal; 110.0 million Btu/hr input rated capacity (7.3 tons/hr wood fuel @ 7500 Btu/lb, 4.2 tons/hr coal @ 13,000 Btu/lb), traveling grate boiler. Wood is the primary fuel. No NSR permit is applicable. NSPS Db is not applicable due to construction before 1984.

Boiler FB3; 1990 Hurst package boiler; distillate (No. 2) fuel oil only; 8.46 million Btu/hr input rated capacity (62 gal/hr distillate [No. 2] fuel oil @ 137,000 Btu/gal). No NSR permit is applicable. NSPS Dc is not applicable due to rated capacity less than 10 million Btu/hr.

Limitations - Fuel Boilers (EU-FB)

1. Particulate emissions from the Erie City boiler FB1 shall be controlled by a multicyclone flyash collector without flyash reinjection (reinjection is acceptable from boiler drums and boiler ash hoppers, and is acceptable from any fallout/ settling chamber or cyclone pre-cleaner or equivalent before a multicyclone flyash collector).
(9 VAC 5-80-110, 9 VAC 5-20-160, 9 VAC 5-40-20)
2. Particulate emissions from the Union Iron Works boiler FB2 shall be controlled by a multicyclone flyash collector without flyash reinjection (reinjection is acceptable from boiler drums and boiler ash hoppers, and is acceptable from any fallout/ settling chamber or cyclone pre-cleaner or equivalent before a multicyclone flyash collector).
(9 VAC 5-80-110, 9 VAC 5-20-160, 9 VAC 5-40-20)
3. The approved fuels for the Erie City boiler FB1 are wood fuel and distillate (No. 2) fuel oil. The wood fuel shall be dry and hogged or smaller as fed to the boiler. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 "Standard Specification for Fuel Oils". A change from these fuels may require a permit to modify and operate.
(9 VAC 5-80-110, 9 VAC 5-20-160, 9 VAC 5-170-160)
4. The approved fuels for the Union Iron Works boiler FB2 are wood fuel and coal. The wood fuel shall be dry and hogged or smaller as fed to the boiler. A change from these fuels may require a permit to modify and operate.
(9 VAC 5-80-110, 9 VAC 5-20-160, 9 VAC 5-170-160)
5. The approved fuel for the Hurst boiler FB3 is distillate (No. 2) fuel oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 "Standard Specification for Fuel Oils". A change from this fuel may require a permit to modify and operate.
(9 VAC 5-80-110, 9 VAC 5-20-160, 9 VAC 5-170-160)
6. Emissions from the operation of the Erie City wood/distillate (No. 2) fuel oil boiler FB1 shall not exceed the limits specified below:

Particulate Matter	0.30 lbs/million Btu input
PM-10	0.30 lbs/million Btu input
Sulfur Dioxide	* lbs/million Btu input hourly emission rate

* The SO₂ emission limits in "lbs/million Btu input hourly emission rate" shall be *the actual (relatively clean) amounts resulting from this boiler burning wood fuel and/or fuel oil meeting ASTM specifications for distillate (No. 1 and No. 2) fuel oil.*
(9 VAC 5-80-110, 9 VAC 5-20-160, 9 VAC 5-170-160, 9 VAC 5-40-900A1, 9 VAC 5-40-930A1)

Calculated potential tons/yr emissions for the FB1 Erie City 37 million Btu/hr wood/No. 2 fuel oil boiler are tabulated below at current AP-42 emission factors and the potential annual fuel throughputs for each fuel at rated capacities for 8760 hrs/yr (37 million Btu/hr wood for 8760 hrs/yr; 270 gph oil x 8760 hrs/yr = 2,365,000 gpy):

Pollutant	Wood		Or No. 2 Fuel Oil		The Larger
	AP-42 Em. F.	37MM Btu/hr x 8760 hrs/yr x 1/2000	AP-42 Em. F	2,365,000 gpy x EF x 1/2000	NA
	Lb/million Btu	Tons/yr emission	Lb/thousand gal.	Tons/yr emission	Tons/yr
PM	0.30* lb/MM x 37 MM x 8760/2000	48.6	2.	2.4	48.6
PM-10	0.27 lb/MM x 37 MM x 8760/2000	43.8	3.3	3.9	43.8
NO _x	0.49	79.4	20.	23.7	79.4
SO ₂	0.025	4.1	71. (142S at 0.5%S)	84.0	84.0
CO	0.60	97.2	5.	5.9	97.2
VOC	0.013	2.1	0.2	0.2	2.1

* This wood value with an asterisk is both the AP-42 emission factor and the amount allowed by the regulations; compliance has been confirmed by recent EPA required Method 5 stack testing on July 9, 1998, which measured the emission rate as 0.242 lbs/million Btu as the worst case of two tests.

The estimated maximum SO₂ emission from No. 2 fuel oil at its ASTM maximum 0.5wt% sulfur and AP-42 emission factors is *approximately 0.52 lb SO₂ emission/million Btu* (142 x 0.5 x 1/137 for heat content of 137,000 to 138,000 Btu/gallon oil). This approximately 0.52 lb SO₂ emission/million Btu due to No. 2 fuel oil as the dirtiest SO₂ fuel registration for this boiler is a cleaner limit due to fuel limitations than any applicable regulation limit.

7. Emissions from the operation of the Union Iron Works wood/coal boiler B2 shall not exceed the limits specified below:

Particulate Matter	0.30 lbs/million Btu input
PM-10	0.30 lbs/million Btu input
Sulfur Dioxide	2.64 lbs/million Btu input hourly emission rate

(9 VAC 5-80-110, 9 VAC 5-170-160, 9 VAC 5-40-900A1, 9 VAC 5-40-930A1)

Calculated potential tons/yr emissions for the FB2 Union Iron Works 110 million Btu/hr wood/coal boiler are tabulated below at current AP-42 emission factors and the potential annual fuel throughputs for each fuel at rated capacities for 8760 hrs/yr (110 million Btu/hr wood for 8760 hrs/yr; 4.2 tons/hr coal x 8760 hrs/yr = 36,792 tons/yr):

Pollutant	Wood		Or Coal		Max
	AP-42 Em. F.	110MM Btu/hr x 8760 hrs/yr x 1/2000	AP-42 Em. F	36,792tpy x EF x 1/2000	
	Lb/million Btu	Tons/yr emission	Lb/ton coal	Tons/yr emission	Max tons/yr emission
PM	0.30* lb/MM x 110 MM x 8760/2000	144.5	12**	144.5**	144.5
PM-10	0.27 lb/MM x 110 MM x 8760/2000	130.1	7.8	143.5	143.5
NO _x	0.49	236.1	11.	202.4	236.1
SO ₂	0.025	12.0	2.64*** lb/MM x 110 MM/hr x 8760/2000	1272.0	1272.0
CO	0.60	289.1	5.	92.0	289.1
VOC	0.013	6.3	0.05	0.9	6.3
HCl	NA	NA	1.2	22.1	22.1

* This wood value with an asterisk is both the AP-42 emission factor and the amount allowed by the regulations; compliance has been confirmed by recent EPA required Method 5 stack testing on December 4, 1998, which measured the emission rate as 0.274 lbs/million Btu as the worst of two tests.

** This coal AP-42 emission factor of 12 lbs/ton of coal predicts more than the regulation allowable 144.5 tons/yr value shown (0.30 lb/million Btu @ 8760 hrs/yr), but compliance with the 0.30 lb/million Btu applicable limit has been confirmed by recent EPA required Method 5 stack testing on December 4, 1998, which measured the emission rate as 0.274 lbs/million Btu as the worst of two tests on this boiler with one of the tests burning 20 to 30% coal with 70 to 80% wood.

*** Coal SO₂ emissions could exceed this regulation limit amount only by using higher sulfur coal than is used in stoker boilers in Va.

8. Emissions from the operation of the Hurst distillate (No. 2) fuel oil boiler FB3 shall not exceed the limits specified below:

Particulate Matter	* lbs/million Btu input
PM-10	* lbs/million Btu input
Sulfur Dioxide	* lbs/million Btu input hourly emission rate

* The particulate and SO₂ emission limits in "lbs/million Btu input" and "lbs/million Btu input hourly emission rate" respectively shall be *the actual (relatively clean) amounts resulting from this boiler burning fuel oil* meeting ASTM specifications for distillate (No. 1 and No. 2) fuel oil.

(9 VAC 5-80-110, 9 VAC 5-20-160, 9 VAC 5-170-160, 9 VAC 5-40-900A1, 9 VAC 5-40-930A1)

The estimated maximum particulate emissions from No. 2 fuel oil is its AP-42 emission factor for particulates, currently totaling approximately 3.3 lb/1000 gallons (2.0 + 1.3 = 3.3), which is *approximately 0.024 lbs/million Btu* at 137,000 to 138,000 Btu/gallon. This is approximately 0.20 lbs/hr particulate emission at 8.46 million Btu/hr, 62 gal/hr, rated input capacity, and approximately 0.9 tons/yr at 8760 hrs/yr at capacity. This approximately 0.024 lb particulate emission/million Btu due to No. 2 fuel oil as the dirtiest particulate fuel registration for this boiler is a cleaner limit due to fuel limitations than any applicable regulation limit.

The estimated maximum SO₂ emission from No. 2 fuel oil at its ASTM maximum 0.5wt% sulfur and AP-42 emission factors is *approximately 0.52 lb SO₂ emission/million Btu* (142 x 0.5 x 1/137 for heat content of 137,000 to 138,000 Btu/gallon oil). This is approximately 4.4 lbs/hr SO₂ emission at 8.46 million Btu/hr, 62 gal/hr, rated input capacity (142 x 0.5 x 62/1000), and approximately 19.3 tons/yr at 8760 hrs/yr at capacity. This approximately 0.52 lb SO₂ emission/million Btu due to No. 2 fuel oil as the dirtiest SO₂ fuel registration for this boiler is a cleaner limit due to fuel limitations than any applicable regulation limit.

Calculated potential tons/yr emissions for the FB3 Hurst 8.46 million Btu/hr No. 2 fuel oil only boiler are tabulated below at current AP-42 emission factors and the potential annual fuel throughput at rated capacity for 8760 hrs/yr (62 gph oil x 8760 hrs/yr = 543,000 gpy):

Pollutant No. 2 Fuel Oil		
	AP-42 Em. F	543,000 gpy x EF x 1/2000
	Lb/ thousand gal.	Tons/yr emission
PM	2.	0.5
PM-10	3.3	0.9
NO _x	20.	5.4
SO ₂	71. (142S at 0.5%S)	19.3
CO	5.	1.4
VOC	0.2	0.1

9. Visible emissions from the Erie City boiler FB1 and the Union Iron Works boiler FB2 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity.
(9 VAC 5-80-110, 9 VAC 5-40-940)
10. Visible emissions from the Hurst boiler FB3 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity. This opacity limitation shall apply to this 1990 boiler at all times except during periods of startup, shutdown, and malfunction.
(9 VAC 5-80-110, 9 VAC 5-50-20 A 3, 9 VAC 5-50-80)

Monitoring/O & M/Recordkeeping - Fuel Boilers (EU-FB):

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the **periodic monitoring** requirements for this equipment group. The monitoring and records include:

1. Visible emissions periodic monitoring is required to assure control equipment maintenance and compliance with permit visible emission limits. This requires a weekly observation, and its recording, of each boiler to check for any visible emissions. If any visible emission is observed, the condition shall be corrected and recorded, or a 40 CFR 60 Appendix A

Method 9 visible emission evaluation performed and recorded to check opacity compliance.
Refr. 9 VAC 5-80-110 E.

2. Develop an inspection schedule, monthly at a minimum, to insure operational integrity of the boilers and multicyclone flyash arrestors, and maintain records of inspection results.
3. Develop a maintenance schedule and maintain records of maintenance, have written operating procedures available, and train operators in the proper operation of the equipment and emission controls.
4. Distillate oil: The permittee shall obtain a certification, or alternative statement since NSPS does not apply, from the fuel supplier covering each shipment of distillate oil. Each fuel supplier certification or alternative statement shall include the following:
 - a. The name of the fuel supplier,
 - b. The date on which the oil was received,
 - c. The amount of distillate oil delivered in the shipment,
 - d. A statement that the oil complies with the American Society for Testing and Materials (ASTM) specifications for fuel oil numbers 1 or 2, and
 - e. The sulfur content of the oil.
5. Coal: The permittee shall obtain for records a certification, or alternative statement since NSPS is not applicable to this boiler, from the fuel supplier covering each shipment of coal. Each coal supplier certification or alternative statement shall include the following:
the name of the fuel supplier, date and tons of shipment, and the sulfur and ash content of the coal.
6. Boilers FB1, FB2, FB3: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:
 - a. (1) The annual throughput of wood fuel and coal for the large Union Iron Works boiler FB2, calculated as the sum of each consecutive twelve (12) month period, and (2) the calendar year annual throughput of wood fuel and distillate fuel oil for the Erie City boiler FB1 and distillate fuel oil for the small Hurst oil boiler FB3 for calculating calendar year annual emissions and fees for these two smaller boilers.

- b. (1) The annual emissions of Particulate Matter, PM-10, SO₂, and NO_x in tons from the large Union Iron Works boiler FB2, calculated as the sum of each consecutive twelve (12) month period, and (2) the calendar year annual emissions from the Erie City boiler FB1 and the small Hurst oil boiler FB3 for calculating calendar year emissions and fees. The emission factors, control efficiencies, and emission calculation equations used in these emission calculations shall be identified and readily available.
- c. Results of all stack tests, visible emission evaluations and performance evaluations.
- d. Notes/periodic monitoring notes: Periodic monitoring to verify compliance with the short term (lbs/million Btu) SO₂ emission limits for any of the boilers (FB1-FB3), are satisfied by meeting the limitations to burn only the specified fuels: wood fuel, distillate (No. 1 or No. 2) fuel oil, and stoker coal used in Virginia. Particulate emission limits for boilers B1 and B3 are automatically met when burning distillate (No. 2) fuel oil.

Compliance with the particulate limits has been verified by stack testing when burning wood in the Erie City boiler FB1, and when burning wood alone and when burning wood plus coal in the Union Iron Works boiler FB2. When burning wood or wood plus coal, continued compliance is assured by a combination of operator training, maintenance and records, inspections at least monthly and records, and weekly opacity checks and records. This monitoring combined with the other monitoring required in this permit is considered to constitute adequate periodic monitoring for these boilers.

(9 VAC 5-80-110, 9 VAC 5-40-50)

Testing - Fuel Boilers (EU-FB):

1. Stack testing the large wood fuel/coal Union Iron Works boiler FB2 for particulate emissions: Once per permit term performance tests (stack tests) shall be conducted for particulate emissions from the large wood fuel/coal Union Iron Works boiler FB2 (110 million Btu/hr input capacity boiler), to determine compliance with the particulate emission limits in this permit (a) when burning wood fuel and (b) when burning coal. This testing shall be performed within three (3) years after the beginning of each 5 year term of this permit. The tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-40-30. The details of the tests are to be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the West Central Regional Office within 45 days after test completion and shall conform to the DEQ test report format.

At the option of the permittee, this stack test may be delayed, even indefinitely, with notification to DEQ and adequate recordkeeping, until the combined wood fuel plus coal throughput in Btus

for this boiler exceeds 50% of its annual capacity factor, calculated monthly as the sum of each consecutive twelve (12) month period (boiler FB2 optional stack testing trigger = $50\% \times 110$ million Btu/hr capacity $\times 8760$ hrs/yr = 481,800 million Btu/yr fuel throughput). Delayed testing shall be performed no later than 180 days after exceeding the 50% annual throughput amount.

2. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the testing and monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - Subject to DEQ approval at the time of the test (except for Method 9). (40 CFR Part 60, Appendix A)
PM/PM-10	Method subject to DEQ approval at the time of testing.
SO ₂	AP-42 emission factors and fuel oil analysis, or EPA Method 6, or DEQ approved method
NO _x	AP-42 emission factors
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

Reporting - Fuel Boilers (EU-FB): Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively.

EMISSION UNIT APPLICABLE REQUIREMENTS -1- Wood Working - Refr. EU-WDS.

This equipment group includes all wood working processes and equipment, including wood working equipment, hogging, material transfers, storage, and air handling systems. All wood dust emission sources are controlled by either baghouse filters (25 main fabric filters exhausting to atmosphere, including three (3) subject to NSR permit requirements), or closed loop cyclones without emissions. There is no applicable NSPS for this process. The wood furniture plant MACT does not apply to the wood working materials and processes that are currently used at this plant. The following NSR permits, by date, apply to portions of the wood working equipment group: 9-21-93 (BF1-3 [at one time named No. 6 production line]), 1-14-00 (BF5-2), 6-8-01 (BF5-3 [at one time named BF7-2]).

Limitations - Refr. EU-WDS Wood working:

1. All wood dust emission sources and wood dust air handling systems shall be controlled by baghouses (fabric filters), closed loop cyclones, or DEQ approved equivalent. These include wood working equipment, hogging, material transfers and storage bins, and wood dust air handling systems. The fabric filters shall be provided with adequate access for inspection and maintained by the permittee such that they are in proper working order.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-260, 9 VAC 5-170-160, 9-21-93 NSR permit conditions 3 & 4, 1-14-00 NSR permit conditions 3 & 4, 6-8-01 NSR permit conditions 3 & 4)

2. The BF1-3 wood working air handling system shall not operate more than 4800 hours per year, calculated as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-170-160, 9-21-93 NSR permit condition 7)

3. The BF5-2 and BF5-3 wood working air handling systems each shall not operate more than 5400 hours per year, calculated as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-170-160, 1-14-00 NSR permit condition 6, 6-8-01 NSR permit condition 6)

4. Particulate emissions from each wood working air handling system baghouse for this equipment group, except BF1-3, BF5-2 and BF5-3, shall not exceed 0.05 grains per standard cubic foot of exhaust gas.
(9 VAC 5-80-110, 9 VAC 5-40-2270)

5. Emissions from the operation of wood working air handling system BF1-3 shall not exceed the limits specified below:

Particulate matter	0.01 grain/dscf	4.63 lbs/hr	11.1 tons/yr
PM-10	0.01 grain/dscf	4.63 lbs/hr	11.1 tons/yr

The annual amount shall be calculated as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-10 D, 9 VAC 5-50-260, 9 VAC 5-40-2270, 9-21-93 NSR permit condition 8)

6. Emissions from the operation of wood working air handling system BF5-2 shall not exceed the limits specified below:

Particulate matter	0.01 grain/dscf	14.6 tons/yr
PM-10	0.01 grain/dscf	14.6 tons/yr

The annual amount shall be calculated as the sum of each consecutive twelve (12) month

period.

(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-10 D, 9 VAC 5-50-260, 9 VAC 5-40-2270, 1-14-00 NSR permit condition 7)

7. Emissions from the operation of wood working air handling system BF5-3 shall not exceed the limits specified below:

Particulate matter	0.01 grain/dscf	14.0 tons/yr
PM-10	0.01 grain/dscf	14.0 tons/yr

The annual amount shall be calculated as the sum of each consecutive twelve (12) month period

(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-10 D, 9 VAC 5-50-260, 9 VAC 5-40-2270, 6-8-01 NSR permit condition 7)

8. Visible emissions from each of the BF1-3, BF5-2, and BF5-3 wood working air handling systems/ baghouses shall not exceed five (5) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.

Visible emissions from each of the wood working air handling systems/ baghouses other than BF1-3, BF5-2, and BF5-3 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.

(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-260, 9 VAC 5-50-80, 9 VAC 5-40-80, 9-21-93 NSR permit condition 9, 1-14-00 NSR permit condition 8, 6-8-01 NSR permit condition 8)

9. Visible fugitive emissions resulting from the collection, transfer or handling of wood fuel related to the BF1-3, BF5-2, and BF5-3 wood working air handling systems/ baghouses shall not exceed 10 percent opacity as determined by 40 CFR 60, Appendix A, Method 9 (EPA Method 9).

Visible fugitive emissions resulting from the collection, transfer or handling of wood fuel related to wood working air handling systems/ baghouses other than BF1-3, BF5-2, and BF5-3 shall not exceed 20 percent opacity as determined by 40 CFR 60, Appendix A, Method 9 (EPA Method 9).

(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-260, 9 VAC 5-50-80, 9 VAC 5-40-80, 9-21-93 NSR permit condition 10, 1-14-00 NSR permit condition 9, 6-8-01 NSR permit condition 9)

Monitoring/O & M/Recordkeeping - Refr. EU-WDS Wood working:

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the **periodic monitoring** requirements for this equipment group. The monitoring and records include:

1. Visible emissions periodic monitoring is required to assure control equipment maintenance and compliance with permit visible emission limits. This requires a weekly observation, and its recording, of each emission point in this emissions group to check for any visible emission. If any visible emission is observed, the condition shall be corrected and recorded, or a 40 CFR 60 Appendix A Method 9 visible emission evaluation performed and recorded to check opacity compliance. This requirement is to assure good control of particulate emissions. Refr. 9 VAC 5-80-110 E.
2. The pressure drop across each baghouse shall be continuously measured and recorded weekly. This requirement is to help assure good control of particulate emissions.
3. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the fabric filters, and maintain records of inspection results.
4. Develop a maintenance schedule and maintain records of maintenance, have written operating procedures available, train operators in the proper operation of the equipment and controls affecting emissions, and maintain an inventory of spare parts needed to maintain the fabric filters in proper working order to minimize emissions.
5. The calendar year annual throughput of wood, for calculating calendar year emissions and fees.
6. The annual hours of operation of baghouses BF1-3, BF5-2, and BF5-3, calculated as the sum of each consecutive twelve (12) month period. This assures meeting the tons/yr limits applicable to these three baghouses (when meeting the hours/yr limitations).
7. Title V periodic monitoring to assure meeting the particulate emission limits, other than the tons/yr limits applicable to three baghouses, is satisfied by the periodic monitoring that assures good baghouse operation and maintenance, periodic inspections and recordkeeping, and periodic visible emission observations to assure that the opacity requirements are met (normally zero opacity).
8. Records as required by the rest of this Monitoring and Recordkeeping section.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, 9 VAC 5-40-20E, 9 VAC 5-50-20E, 9 VAC 5-40-50, 9 VAC 5-50-50, 9-21-93 NSR permit condition 12, 1-14-00 NSR permit condition 10, 6-8-01 NSR permit condition 10, 5-19-99 NSR permit amended 7-29-02 condition 16)

Testing: - Refr. EU-WDS Wood working: The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - Subject to DEQ approval at the time of the test (except for Method 9). (40 CFR Part 60, Appendix A)
PM/PM-10	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

Reporting - Refr. EU-WDS Wood working: Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively.

EMISSION UNIT APPLICABLE REQUIREMENTS 2 - FINISHING - Refr. EU-F.

This group EU-F includes all finishing for the plant, both (F1) all unpermitted existing finishing, and (F2) all Plant 2 finishing constructed under the Plant 2 PSD NSR permit issued 5-19-99 and amended/reissued 7-29-02.

The wood furniture manufacturing MACT applies as an existing MACT JJ source (40 CFR 63 Subpart JJ) to both F1 (non-Plant 2) and F2 (Plant 2). The plant's primary method for meeting the MACT is to use MACT compliant coatings, although finishing can fall back on monthly averaging, or any other option as allowed under the MACT requirements. No NSPS applies to wood furniture finishing. A 5-19-99 PSD NSR permit amended/reissued 7-29-02 applies to the Plant 2 finish room, F2. No NSR permit is applicable to finishing in other parts of the facility.

F1 consists of all finishing operations other than F2 (Plant 2) finishing operations. F1 includes 38 finishing spray booths and related facilities, including various ovens and 6 washoff tanks. F2 (Plant 2) finishing operations consist of 11 finishing spray booths and related facilities in Plant 2 finishing, including a community oven.

Limitations - Finishing (EU-F)

1. Particulate emissions from each finishing spray booth, refr. EU-F, when its spraying equipment is operating, shall be controlled by dry filters or water curtain spray booths or equivalent at a minimum. The overspray particulate controls shall be provided with adequate access for inspection and maintained by the permittee such that they are in proper working order.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-20, 9 VAC 5-50-260, 5-19-99 NSR permit amended 7-29-02 condition 3, 9 VAC 5-40-20, 9 VAC 5-170-160)
2. Fugitive emission controls: Volatile organic compounds (VOCs) shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.
(9 VAC 5-80-110, 9 VAC 5-40-20 F, 9 VAC 5-50-20 F)
3. Volatile Organic Compound emissions from the Plant 2 finishing line (F2) spray booths shall be minimized by proper spraying technique, the use of HVLP and/or air assisted airless spray equipment, and by complying with the Work Practice Standards of 40 CFR 63, Subpart JJ.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-50-1100, 9 VAC 5-50-260, 5-19-99 NSR permit amended 7-29-02 condition 5)
4. The throughput of VOC in finishing and related materials in Plant 2 finishing (F2) shall not exceed 350.0 tons per year, calculated as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 9 VAC 5-170-160, 9 VAC 5-50-20, 5-19-99 amended 7-29-02 NSR permit condition 6)
5. The throughput of gross board feet of lumber used in manufacturing furniture for the Plant 2 finishing line (F2) shall not exceed 3.1 million board feet per year, calculated as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 5-19-99 NSR permit amended 7-29-02 condition 7)
6. Particulate emissions from the operation of the Plant 2 finishing line (F2) shall not exceed 5.0 tons per year, calculated as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 9 VAC 5-50-260, 5-19-99 NSR permit amended 7-29-02 condition 8)

7. Visible emissions from each Plant 2 (F2) finishing spray booth shall not exceed five (5) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.

Visible emissions from each finishing spray booth, except Plant 2 (F2) finishing spray booths, shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.

(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-260, 9 VAC 5-50-80, 5-19-99 NSR permit amended 7-29-02 condition 13, 9 VAC 5-40-80)

8. All finishing, including Plant 2 finishing (F2), shall be operated in compliance with 40 CFR 63 Subpart JJ (wood furniture manufacturing MACT) as an existing affected source.
(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-50-260, 9 VAC 5-60-90, 5-19-99 NSR permit amended 7-29-02 condition 14)

Monitoring/O & M/Recordkeeping - Finishing (EU-F):

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the **periodic monitoring** requirements for this equipment group. The monitoring and records include:

1. Visible emissions periodic monitoring is required to assure control equipment maintenance and compliance with permit visible emission limits. This requires a weekly observation, and its recording, of each operating emission point in this emissions group to check for any visible emission. If any visible emission is observed, the condition shall be corrected and recorded, or a 40 CFR 60 Appendix A Method 9 visible emission evaluation performed and recorded to check opacity compliance. This requirement is to assure good control of overspray particulates. Refr. 9 VAC 5-80-110 E.
2. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the overspray collectors, and maintain records of inspection results.
3. Develop a maintenance schedule and maintain records of maintenance, have written operating procedures available, train operators in the proper operation of the equipment, and maintain an inventory of spare parts needed to maintain the overspray collectors in proper working order to minimize emissions.

4. The permittee shall maintain records of all *finishing* emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:
- a. *Plant 2 throughput and emissions:* Monthly and annual material balance including the throughput and emissions of VOC and particulates associated with Plant 2 finishing (F2). Plant 2 annual throughput and emissions shall be calculated as the sum of each consecutive twelve (12) month period. Plant 2 throughput shall be calculated as the summation of finishes applied to each case. Plant 2 particulate emissions from furniture finishing shall be calculated using 50% transfer efficiency and 90% control efficiency. (Except for VOCs removed from the facility as waste or liquids, all the VOC throughput evaporates to atmosphere.)
 - b. *Plant 2 lumber throughput:* Monthly and annual material balance including the throughput of gross board feet of lumber used in manufacturing associated with Plant 2 finishing (F2). The annual quantities shall be calculated as the sum of each consecutive twelve (12) month period. The gross board feet of lumber used shall be calculated as the summation of net board feet used for each manufactured case, divided by the percent yield on an annualized basis.
 - c. *Plant 2 operating hours:* Daily record of the number of hours of operation of Plant 2 finishing (F2) spray booths. Annual quantities shall be calculated as the sum of each consecutive twelve (12) month period.
 - d. *Plant 2 other:* A certified annual report which provides the purchase price variance, as a percentage, comparing actual to costed prices for finishes applied at the Stanleytown facility.
 - e. *Combined plant throughput:* The combined plant calendar year annual throughput of finish and related materials, in tons of VOC, tons of solids, and either tons or gallons of finish and related materials, for calculating calendar year emissions and fees.
 - f. *Combined plant emissions:* The combined plant calendar year annual VOC and particulate emissions in tons from finishing and related operations, for calculating calendar year emissions and fees. The emission factors and emission calculation equations used in these emission calculations shall be identified and readily available. (Except for VOCs removed from the facility as waste or liquids, all the VOC throughput evaporates to atmosphere.)

The equation to calculate VOC emissions follows:

VOC emissions = VOC throughput.

VOC throughput = VOC received - VOC removed as liquid waste or unused material.

- g. *MACT JJ monthly averaging option*: Monthly finishing throughput for the combined plant for finish and related materials, in tons of VOC and tons of solids, for each month that the monthly averaging option (instead of the compliant coating option) is used to comply with 40 CFR 63 Subpart JJ (MACT JJ). [Note that 40 CFR 63 Subpart JJ requires considerable additional recordkeeping for each month that the monthly averaging option is used.]
- h. Records as required by the rest of this Monitoring and Recordkeeping section. Also see Facility Wide Conditions (including MACT record keeping), and Recordkeeping under the General Conditions in the permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, 9 VAC 5-80-10, 9 VAC 5-80-1100, 9 VAC 5-80-1700,
9 VAC 5-40-50, 9 VAC 5-50-50, 5-19-99 NSR permit amended 7-29-02 condition 16)

Testing - Finishing (EU-F): The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - Subject to DEQ approval at the time of the test (except for Method 9). (40 CFR Part 60, Appendix A)
Visible Emissions	EPA Method 9
VOC	40 CFR 63 Subpart JJ Wood Furniture MACT Certified Product Data Sheets, 40 CFR 60 Appendix A method 24, or DEQ approved equivalent.

(9 VAC 5-80-110)

Reporting - Finishing (EU-F): Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively. Note additional MACT reporting requirements under Facility Wide Conditions.

EMISSION UNIT APPLICABLE REQUIREMENTS 3 - Contact Adhesive Process, - (Con-Adh):

The plant has a small contact adhesive operation which includes one (1) contact adhesive spray booth. The wood furniture MACT, 40 CFR 63 Subpart JJ, applies to contact adhesives. The plant uses MACT compliant contact adhesives. No NSPS currently applies to this process. No NSR permit applies to this process.

Limitations - Contact Adhesive Process (Con-Adh):

1. The contact adhesive process shall be operated in compliance with the requirements of 40 CFR 63 Subpart JJ (wood furniture manufacturing MACT) as an existing affected source. (9 VAC 5-80-110, 9 VAC 5-60-100)
2. Particulate emissions from each contact adhesive spray booth, refr. Con-Adh, when its spraying equipment is operating, shall be controlled by water wash spray booths, spray booth dry filters, or equivalent at a minimum. The overspray particulate controls shall be provided with adequate access for inspection and maintained by the permittee such that they are in proper working order when the spraying equipment is operating. (9 VAC 5-80-110, 9 VAC 5-170-160)
3. Visible emissions from each contact adhesive spray booth stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity. (9 VAC 5-80-110, 9 VAC 5-40-80, 9 VAC 5-50-80, 9 VAC 5-170-160)

Monitoring/O & M/Recordkeeping - Contact Adhesive Process (Con-Adh):

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the **periodic monitoring** requirements for this equipment group. The monitoring and records include:

1. Visible emissions periodic monitoring is required to assure process control and compliance with permit visible emission limits. This requires a weekly observation, and its recording, of each operating emission point in this emissions group to check for any visible emission. If any visible emission is observed, the condition shall be corrected and recorded, or a 40 CFR 60 Appendix A Method 9 visible emission evaluation performed and recorded to check opacity compliance. Refr. 9 VAC 5-80-110 E.

2. Have written operating procedures available for the equipment, and train operators in the proper operation of the equipment in order to minimize emissions.
3. The permittee shall maintain records of all contact adhesive process emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:
 - a. *Throughput*: The calendar year annual throughput of contact adhesive and related materials, in tons of VOC for the VOC content that evaporates, tons of solids, and either tons or gallons of contact adhesive and related material, for calculating calendar year emissions and fees. [Note that 40 CFR 63 Subpart JJ may require additional recordkeeping.]
 - b. *VOC Emissions*: The calendar year annual VOC emissions in tons from contact adhesive and related materials, for calculating calendar year emissions and fees. The emission factors and emission calculation equations used in these emission calculations shall be identified and readily available. (Except for VOCs removed from the facility as waste or liquids, all the evaporable VOC throughput evaporates to atmosphere.)

The equation to calculate VOC emissions follows:

VOC emissions = VOC throughput (which evaporates).

VOC throughput = VOC received (which evaporates) that is consumed on site.

- c. Records as required by the rest of this Monitoring and Recordkeeping section. Also see Facility Wide Conditions (including MACT record keeping), and Recordkeeping under the General Conditions in the permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, 9 VAC 5-50-50, 9 VAC 5-50-50)

Testing - Contact Adhesive Process (Con-Adh): The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - Subject to DEQ approval at the time of the test (except for Method 9). (40 CFR Part 60, Appendix A)
Visible Emissions	EPA Method 9
VOC	40 CFR 63 Subpart JJ Wood Furniture MACT Certified Product Data Sheets, 40 CFR 60 Appendix A method 24, or DEQ approved equivalent.

(9 VAC 5-80-110)

Reporting - Contact Adhesive Process (Con-Adh): Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively. Note additional MACT reporting requirements under Facility Wide Conditions.

EMISSION UNIT APPLICABLE REQUIREMENTS 4 - (Lumber) Drying Kilns-(EU-K):

The plant has 13 lumber drying kilns that can hold a combined total of 1,905,000 BRD FT of lumber. Annual throughput capacity is approximately 35,000,000 BRD FT. Each kiln is a small stationary building that slowly dries stationary stacks of lumber by heating for days with steam heated pipes in the building. The only emissions are a small amount of VOC without visible emissions (often less than 5 tons/yr) and moisture evaporated from stacks of warm lumber in the buildings. No MACT, NSPS, or NSR permit limit is applicable at this time.

Limitations - Drying Kilns (EU-DK); Not Applicable - No limitations.

Monitoring/Operation & Maintenance/Recordkeeping - Drying Kilns (EU-DK):

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the **periodic monitoring** requirements for this equipment group. The monitoring and records include:

1. Visible Emissions: - Not Applicable (inherently no visible emissions).
2. Operation and Maintenance Procedures - Not Applicable.
3. The permittee shall maintain records of all emission data and operating parameters necessary

for this process to quantify calendar year annual VOC emissions. The content of and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

- a. *Throughput*: The calendar year annual throughput of lumber in board feet and type of lumber sufficient for calculating calendar year emissions and fees for all lumber drying kilns combined.
- b. *VOC Emissions*: The calendar year annual VOC emissions in tons from all lumber drying kilns combined, for calculating calendar year emissions and fees. The emission factors and emission calculation equations used in these emission calculations shall be identified and readily available.
- c. Records as required by the rest of this Monitoring and Recordkeeping section.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, 9 VAC 5-40-50)

Testing - Drying Kilns (EU-DK): The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - Subject to DEQ approval at the time of the test (except Method 9). (40 CFR Part 60, Appendix A)
Volatile Organic Compounds	DEQ approved method at the time of the test.

(9 VAC 5-80-110)

Reporting - Drying Kilns (EU-DK): Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively.

**EMISSION UNIT APPLICABLE REQUIREMENTS - Facility Wide Conditions.
40 CFR 63 Subpart JJ (Wood Furniture MACT).**

This MACT is applicable to this plant. The mandatory compliance date has past. The plant is in compliance with the MACT. The facility is required to be operated in compliance with the MACT. Much of this MACT (several pages) is repeated in this Title V permit under the section on facility wide conditions. For the materials and processes currently used at this plant, the

principal portion of the MACT that is applicable to this facility concerns the VHAPS in much of finishing and contact adhesives. The plant's principal way of meeting the MACT is to normally use only MACT compliant coatings, although finishing can fall back on monthly averaging, or any other option as allowed under the MACT requirements.

STREAMLINED REQUIREMENTS

Streamlining 1: EU-B: Boilers; SO₂ emissions for wood/fuel oil Erie City boiler B1 and fuel oil Hurst boiler B3: The 9 VAC 5-40-930A1 emission limit of 2.64 lbs SO₂/million Btu is streamlined out to the more restrictive "actual (relatively clean) amounts resulting from burning wood fuel and/or fuel oil meeting ASTM specifications for distillate (No. 1 and No. 2) fuel oil".

Streamlining 2: EU-B: Boilers; Particulate Matter and PM-10 emissions for fuel oil Hurst boiler B3: The 9 VAC 5-40-900A1 emission limit is streamlined out to the more restrictive "actual (relatively clean) amounts resulting from burning fuel oil meeting ASTM specifications for distillate (No. 1 and No. 2) fuel oil".

Streamlining 3: EU-WDS, EU-F, Con-Adh: Visible Emissions for Woodworking, Finishing, and Contact Adhesive Process: Except for specific identified equipment having tighter NSR permit limitations, the 9 VAC 5-40-80 regulation limiting visible emissions to 20% opacity except for 60% during one six minute period per hour for pre-1972 equipment is streamlined out by the more restrictive 9 VAC 5-50-80 limitation of 20% opacity except for 30% during one six minute period per hour for post-1972 equipment for all the equipment in Woodworking (EU-WDS), Finishing (EU-F), and the Contact Adhesive Process (Con-Adh). This will simplify and minimize confusion for the visible emission limit and its periodic monitoring, recordkeeping and reporting. It also provides operational flexibility to modify or install new equipment in cases not otherwise requiring a NSR permit. This limit is widely used, and is easily met by these processes.

Streamlining 4: Obsolete conditions: The conditions in the NSR permit are streamlined out which deal with new equipment installation time frames and startup initial notifications, initial visible emissions evaluations, and initial stack tests because these conditions are obsolete due to having been completed for all permitted equipment.

Streamlining 5: The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources (pre-1972 sources such as the two wood fuel boilers) at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of

startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or excess emissions, including those caused by upsets, within four daytime business hours.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant: NA.

There are no state toxics conditions in this Title V permit because there are none in any applicable NSR permit for this facility.

FUTURE APPLICABLE REQUIREMENTS

A future MACT for industrial boilers may (or may not) become applicable to this facility.

INAPPLICABLE REQUIREMENTS

40 CFR 60 Subpart Dc (NSPS Dc) does not apply to the pre-1967 B1 Erie City 37 million Btu/hr capacity boiler because it was installed before the 1989 applicability date, nor does it apply to the 1990 B3 Hurst 8.46 million Btu/hr capacity boiler because it is smaller than 10 million Btu/hr capacity. 40 CFR 60 Subpart Db (NSPS Db) does not apply to the 1967 B2 Union Iron Works 110 million Btu/hr capacity boiler because it was installed before the 1984 applicability date.

COMPLIANCE PLAN

NA because this facility is considered to be in compliance.

INSIGNIFICANT EMISSION UNITS

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (5-80-720 C)
Gluing (except contact adhesive)	Gluing (except the Contact Adhesive operation).	9 VAC 5-80-720 B,C	VOC (less than 5 tpy)	Includes up to 2 million Btu/hr capacity natural gas heat per hot plate glue press.
Maintenance Parts Washers	Maintenance Parts Washers that do not use halogenated solvents.	9 VAC 5-80-720 A,B	VOC (less than 5 tpy)	
Fire Pumps	1 Emergency Diesel Fire Pump	9 VAC 5-80-720 C		One 190 hp.
Vacuum Pump Room	Vacuum Pump Room	9 VAC 5-80-720 A,B	VOC (less than 5 tpy)	
Facility Air Compressors	Powered by electric motors.	9 VAC 5-80-720 A	VOC (less than 5 tpy)	
Misc Storage Tanks	15 AST Tanks - finishing materials 1 AST Tank - gasoline 1 AST Tank - diesel 1 AST Tank - #2 fuel oil 1 AST Tank - used oil	9 VAC 5-80-720 B	VOC (less than 5 tpy)	Capacity of each tank is less than 10,000 gal (most are much smaller).

These insignificant emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was published in the *Martinsville Bulletin* on March 23, 2003. Public comments were accepted for 30 days following publication of the notice, through April 22, 2003. There were no comments. EPA's 45 day review period for the proposed permit was from March 23, 2003 through May 7, 2003, but there were no comments.